

REMARKS/ARGUMENTS

This paper is submitted in response to the Office Action mailed September 27, 2007. Reconsideration is respectfully requested.

Claims 1-32 were examined. Claims 1-7, 11-20, and 24-29 were rejected. Claims 8-10, 21-23, and 30-32 were objected to as depending from rejected claims, but were held to define allowable subject matter.

As set forth above, claims 8, 21, and 30 have been amended, and new claims 33-40 have been added. As explained below, it is respectfully submitted that claims 1-40, as amended, are patentable over the art of record.

Claims 1, 11, and 14 have been rejected as anticipated by US 5,925,023 – Hiejima. Claims 2-7, 15-20, and 24-29 have been rejected under 35 U.S.C. §103(a) as unpatentable over Hiejima in view of US 5,113,906 – Högner. Claim 12 was rejected under 35 U.S.C. §103(a) as unpatentable over Hiejima in view of US 6,939,234 – Gonnelli et al. Claim 13 was rejected under 35 U.S.C. §103(a) as unpatentable over Hiejima in view of the disclosure at Paragraph 0021 of the subject application. These rejections are respectfully traversed.

Preliminarily, claims 8, 21, and 30 have been amended to correct an error in dependency. These claims, as amended, now properly depend from claims 6, 19, and 28, respectively.

Independent claims 1 and 11 recite “a plurality of flow conduits” that are of “substantially equal inside diameters.” Independent claim 24 recites at least three flow conduits, each of which includes a flow control tube, “wherein the flow control tubes are of substantially equal internal diameter.” While Hiejima teaches the use of a plurality of “constant flow rate paths 31, 32, and 33” that may be set at different flow rates by having different lengths (column 3, lines 1-34; Figs. 2 and 7), there is no teaching in the reference that the conduits or paths 31, 32, 33 have substantially equal inside or internal diameters, as defined in claims 1, 11, and 24. Indeed, there is no discussion at all in the reference of the internal or inside diameters of the paths or conduits 31, 32, 33. The explicit teaching of Högner is the use of flow conduits that are of different cross-sectional areas (i.e., inside diameters). See column 3, lines 59-63; Figs. 1 and 5.

Thus, Hiejima, by itself, fails to teach the invention as defined in claims 1, 11, and 24, and nothing in the secondary references, when combined with the disclosure of Hiejima, results in the invention defined in these claims. Accordingly, it is respectfully submitted that

independent claims 1, 11, and 24 define patentably over Hiejima, either by itself or combination with the secondary references, and are therefore patentable over the art of record.

Claims 2-10 depend from claim 1; claims 12-23 depend from claim 11; and claims 25-32 depend from claim 24. These dependent claims are respectively submitted to be patentable over the art of record for the same reasons as set forth above for their respective independent claims. Moreover, the dependent claims further define the patentable features of the present invention with greater particularity, and/or they define additional patentable features of the invention. Accordingly, it is respectfully submitted that they should be allowed along with their respective independent claims.

New independent claims 33 and 38 define the invention as including “a cam rotor disc rotatably mounted in the housing and having a lower surface provided with a plurality of cam elements in radial positions in which each of the cam elements is operatively engageable with an associated one of the flow-blocking elements as the rotor is rotated through a plurality of pre-defined rotational positions, each of the rotational positions being associated with a pre-defined fluid flow rate.” Support for this claim language is found in the specification at paragraph 0038 (of the application publication no. 2006/0070669), and in Figs. 2, 7, and 8.

Hiejima has no teaching or suggestion of a rotational device for actuating the flow blocking elements. While Högner does disclose a rotor, the rotor in the reference is not a “disc,” nor does it have “a lower surface provided with a plurality of cam elements in radial positions,” as defined in claims 33 and 38. Instead, Högner’s rotor comprises a rotational shaft carrying a plurality of cam elements located axially along its length. The structure defined in claims 33 and 38 provides a simpler and more compact structure, in which the rotor disc itself has a camming surface. For Högner to teach the claimed structure, the knob 108 would need to be placed “in the housing,” and the cams would need to be placed on the back surface of the knob 108. Neither aspect is taught or suggested by the reference.

Accordingly, it is respectfully submitted that the art of record fails to teach or suggest the invention defined in claims 33 and 38. It is therefore respectfully submitted that these claims are patentable over the art of record.

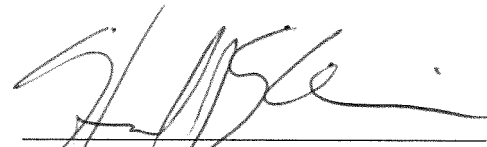
Claims 34-37 depend from claim 33, and claims 39-40 depend from claim 38. These dependent claims are respectively submitted to be patentable over the art of record for the same reasons as set forth above for their respective independent claims. Moreover, the dependent

claims further define the patentable features of the present invention with greater particularity, and/or they define additional patentable features of the invention. Accordingly, it is respectfully submitted that they should be allowed along with their respective independent claims.

In summary, it is respectfully submitted that claims 1-40 are allowable over the art of record. Passage of the application to issue is therefore earnestly solicited.

Should there be any further issues to address in the application, the Examiner is respectfully invited to telephone the undersigned attorney to expedite the prosecution of the application to issue.

Respectfully submitted,



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